

ENGINEERING MATERIAL SPECIFICATION

Material Name	Specification Number
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VINYL, FILM, BONDING GRADE

ESB-M2F102-D

1. SCOPE

The material defined by this specification is a vinyl or vinyl copolymer unsupported film.

2. APPLICATION

This specification was released originally for material used as a sunvisor cover material.

3. REQUIREMENTS

Material specification requirements are to be used for initial qualification of materials.

3.0 STANDARD REQUIREMENTS FOR PRODUCTION MATERIALS

Material suppliers and part producers must conform to the Company's Standard Requirements For Production Materials (WSS-M99P1111-A).

3.4 DIMENSIONS

(ASTM D 374, Method C)

Thickness	0.41 - 0.51 mm
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3.5 SPECIFIC GRAVITY, max (ASTM D 792)

1.41

3.6 TENSILE STRENGTH, min (ASTM D 1682, Grab Method)

MD & AMD	289 N
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3.7 HARDNESS (ASTM D 2240, 15 s dwell)

78 - 88

To be determined on ungrained stock. Grained samples can be used if the grained surface of 2 samples are placed together, then tested.

Date	Action	Revisions
2003 01 09	Revised	Para 3.0 inserted ; Para 3.1, 3.2, 3.3, 3.13, 3.14, 4 deleted
2000 10 26	Revised	Updated A. Cockman
1990 04 10	NB00110043054019	Released J. D. Salow B. C. Ferns

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3.8 FOGGING

(SAE J1756, 3 h at 100 °C heating, 21 °C cooling plate, post test conditioning 1 h and 16 h)

Fog Number, min 60

Formation of clear film, droplets or crystals is cause for rejection.

3.9 DIMENSIONAL STABILITY, max change

MD 6.0 %

AMD 2.0 %

Test Method: Cut a 305 x 305 mm sample from any portion of a roll and expose sample to a temperature of 102 +/- 3 °C for 15 minutes.

Note: The material after cutting shall not change more than 1.5 % in the machine direction and 1.0 % in the across machine direction during warehouse storage, up to 2 weeks at normal temperature and relative humidity's.

3.10 RESISTANCE TO ELEVATED TEMPERATURE

(FLTM BN 113-02)

A bonded assembly shall exhibit no bond delamination or loss of embossed definition.

3.11 BOND STRENGTH, min

(FLTM BN 113-01)

Original 4.5 N

Aged 3.3 N

Wet 3.3 N

The material shall give satisfactory performance when bonded to approved cover and/or padding materials and approved foundation boards. The laminate shall be compatible with the binding resins used in the approved foundation boards.

3.12 FLAMMABILITY, max

(ISO 3795/SAE J369)

100 mm/minute